Inverness Medical

Maine Manufacturing Extension Partnership

Lean Methodologies Help Inverness Medical Diagnose Substantial Cost Savings

Client Profile:
Inverness Medical Innovations is a world leader in the field of diagnostic products to assist laboratory and healthcare professionals in both preventative and interventional medicine. Their products provide data for qualitative and quantitative analysis of patients' bodily fluids and/or tissue which give evidence of specific medical conditions and disease, helping professionals provide the optimal therapy or measure response to therapy. The company employs 12 people at its facility in Scarborough, Maine.

Situation:
As a manufacturer of diagnostic kits to detect flu and other communicable diseases, Inverness experiences extreme swings in demand due to the seasonality of the diseases detected by the kits. To accommodate these swings, the company has relied heavily on temporary labor as well as a build-to-stock strategy. Both approaches have had their downsides. The manufacture of their product requires a high degree of traceability via serialization of all sub component pieces to the finished product. With a rapid influx of temporary workers during the busy season, there have been lapses in manufacturing control resulting in loss of traceability, costly product recalls, and field corrections. The products also have shelf life limitations which prevent Inverness from using a build-to-stock strategy during the slow season. The challenge has been to flex their capacity to market conditions while simultaneously controlling their costs. The company contacted the Maine Manufacturing Extension Partnership (Maine MEP), a NIST MEP network affiliate, for help.

Solution:
Maine MEP's Larry Robinson trained Inverness personnel in the Lean manufacturing techniques of Value Stream Mapping and rapid improvement methods through Kaizen. Using these tools, Inverness optimized their facility layouts using new automated equipment in a flexible manufacturing cell orientation, linking three batch and que processes to create one continuous flow/balanced line. This allowed the company to adjust to changes in daily demand by quickly reorganizing their capacity on an as-needed basis and reducing lead times. Creating a continuous flow reduced the number of people needed to produce the typical batch of finished goods from 16.5 to 12, allowing Inverness to become less reliant on temporary contract labor during the busy season. The in-line process forced the company to change the way they tested the product for quality control and reduced the risk of batch failure and mix-ups in products during kit assembly.

Results:
* Reduced lead time by 90 percent.
* Reduced labor by 17.7 percent.
* Reduced cost per device by 10 percent.

* Projected annual cost savings of $600,000.

Testimonial:
"I was very impressed with the professionalism and real world experience that Larry and his team brought with them to Inverness. The production department and management fed off their energy and the training spawned a new culture of Lean [rojects and process improvement. I would recommend this service to any manufacturing site that wants or needs improvement. Larry and his team seem to really care and have a vested interest in the people, business and results, which is why I believe our program was such a success."

Jason Hallee, Director of Operations